

REMARKS

Claims 1-20 are pending.

Claim 1-20 stand rejected under Section 102(e) as being anticipated by Nevis (6581159).

**Nevis Is Not Prior Art.**

The Rule 131 Declarations of inventor Kenneth Smith and Hewlett-Packard Company patent counsel Steve Ormiston show that the claimed subject matter was conceived before the date Nevis was filed in the United States and a constructive reduction to practice was pursued thereafter with reasonable diligence. Nevis, therefore, should be withdrawn as a prior art reference.

**1. Mapping The Claimed Subject Matter To The Invention Disclosure.**

Claim 1 is directed to a method for maintaining the integrity of the contents of a modifiable memory when the system attempts to overwrite the contents with a different code set. Claim 1 recites the following elements.

1. Providing a one-way algorithm which acts on a replacement code set and generates a security key unique to the replacement code set, said algorithm being maintained confidential by the provider of the replacement code set.
2. Providing the security key in combination with distributions of the replacement code set.
3. Providing a memory controller having an embedded copy of the algorithm, said memory controller causing a tendered code set, which the computer system attempts to write into the modifiable memory, to be acted on by the embedded copy, thereby generating a local key.
4. Comparing the local key with the security key.
5. Allowing the contents of the modifiable memory to be overwritten only if the local key matches the security key.

The invention disclosure document attached as Exhibit A to Mr. Smith's Declaration describes one embodiment of these elements at page 3, last paragraph, which describes an "Implementation A" as follows:

"The information loaded into the modifiable memory will be called the 'image' and 'key'. When a software developer generates a new image, the developer runs the image through a 'one-way function',

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thus creating the key. This one way function is kept company secret. The Memory controller contains the same one-way function as the software developer. Before any instructions are passed to the microprocessor, the memory controller mechanism reads in the entire image, processes the one-way function on the image, and compares the resultant key with the key stored in the modifiable memory. If these keys fail to match, then some 'safe' set of code is executed which would request a new image be loaded into the machine, and warn the operator of possible malicious modification to the machine's instruction."

Claims 2-8 depend from Claim 1.

The microprocessor and main memory recited in dependent Claim 3 and the associated acts recited in Claim 4 are also described in Implementation A in the invention disclosure document. The special purpose processor and on-chip memory recited in Claim 5 and the associated acts recited in Claim 6 are described in Implementation B at page 4 of the invention disclosure document.

Claim 9 is similar to Claim 1 except it recites specifically that the code set is basic input/output system (BIOS) code. Claim 16 is similar to Claim 1 except it recites a one-way algorithm that arithmetically manipulates the code set. As noted above, Nevis is not prior art as to the invention more broadly recited in Claim 1, which encompasses any code set in a modifiable memory and any one-way algorithm and, therefore, Nevis is also not prior art as to the specific BIOS implementation recited in Claim 9 and the specific arithmetic algorithm implementation recited in Claim 16.

Claims 10-15 depend from Claim 9 and Claims 17-20 depend from Claim 16.

## **2. *Constructive Reduction to Practice.***

The invention was documented in an Invention Disclosure No. 10001436 submitted to HP's legal patent department on December 14, 1999. This Disclosure is attached to Mr. Smith's Declaration as Exhibit A. The patent application was filed about 13 months later, on January 22, 2001.

Mr. Ormiston's Declaration documents the fact that the pre-filing documents evidencing some of the events described below and ordinarily maintained by HP were destroyed when the hardcopy file for this application was recently scanned into an electronic file and then discarded. Nevertheless, the following events occurred in this case between the time the Invention Disclosure document was submitted and

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the time the application was filed, just as they did in every case processed by HP in the early 2000s.

1. The Invention Disclosure is reviewed by an HP patent review committee. The Invention Disclosure is approved for filing a patent application.

2. The inventor is notified of the committee's decision and that the case will be assigned to an outside patent attorney for preparing the patent application.

3. A Request for Quote is sent to an outside patent attorney along with the Invention Disclosure requesting that the attorney submit a quote for the cost to prepare a patent application for the invention.

4. The outside patent attorney quote is reviewed by HP in-house counsel and, if it is acceptable, awards a contract to the outside patent attorney to prepare the patent application.

5. The outside patent attorney interviews the inventor, prepares a first draft patent application and submits the first draft to the inventor for review.

6. The inventor reviews the first draft patent application and returns it to the outside patent attorney with comments and changes.

7. The outside patent attorney revises the patent application and submits a second draft patent application to the inventor for review.

8. The inventor approves the second draft patent application (or makes comments and changes, in which case the draft/review process is repeated).

9. The outside patent attorney submits the inventor approved draft patent application to HP legal for review.

10. An in-house HP patent attorney reviews the inventor approved draft patent application and approves the application for filing (or returns the application to the outside patent attorney with comments and changes, in which case the review process is repeated).

11. Once the patent application is approved by HP legal, the Declaration is prepared and the inventor signature is obtained and then the application is filed with the U.S. Patent Office.

Filing a patent application approximately 13 months after the invention is documented (as in the Invention Disclosure) is sufficient to establish reasonable diligence pursuing a constructive reduction to practice. Given the complexities inherent in processing the documentation of many thousands of inventions each

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year in a large corporate environment, and then preparing and filing patent applications that provide comprehensive and thorough coverage for two or three thousand of these inventions using the lengthy process detailed above, Applicant respectfully submits that 13 months is reasonable *a priori*.

The foregoing is believed to be a complete response to the outstanding office action.

Respectfully submitted,



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